WHAT IS CLAIMED IS:

1	1.	A nucleic acid array, wherein each coordinate of the array contains		
2	a single nucleic acid species, which nucleic acid species has a sequence of a Xenopus			
3	embryonic gene prod	embryonic gene product set forth in Appendix 1, or the complement thereof, or a		
4	hybridizable fragmen	hybridizable fragment thereof consisting of not less than 20 contiguous nucleotides from		
5	the sequence.			
1	2.	The nucleic array of claim 1 comprising all of the sequences from		
2	Appendix 1.			
1	3.	The nucleic acid array of claim 1 wherein the nucleic acids are		
2	cDNAs.			
1	4.	The nucleic acid array of claim 1 wherein the nucleic acids are		
2	oligonucleotides.			
1	5.	The nucleic acid array of claim 1, wherein the array is supported		
2	on a solid support selected from the group consisting of a glass slide and a silicon chip.			
3				
4	6.	An isolated nucleic acid comprising a sequence corresponding to		
5	or complementary to a sequence of not less than 20 contiguous nucleotides of any one			
6	the sequences of Appendix 1.			
1	7.	The nucleic acid of claim 6 wherein the sequence consists of the		
2	sequence of Appendix 1, or the complement thereof.			

1		8.	The nucleic acid of claim 6 wherein the sequence lacks any
2	homology to a	known	sequence as set forth in the list in Appendix 1.
1		9.	Method for detecting differential expression of embryonic genes,
2	which method	compr	
3			(a) contacting a nucleic acid array comprising one or more genes
4	expressed in embryonic cells but not in mature cells with a sample nucleic acid		
5	preparation and a control nucleic acid preparation, wherein the sample nucleic acid		
6	preparation and control nucleic acid preparation contain nucleic acids expressed by		
7	sample cells and control cells, respectively, and		
8			(b) detecting differential hybridization of nucleic acids from
9	sample cells relative to control cells to nucleic acids in the array.		
1		10.	The method according to claim 9 wherein the sample nucleic acids
2	are mRNAs.		
1		11.	The method according to claim 9, wherein the sample nucleic acids
2	are cDNAs pr	oduced	by reverse transcriptase-polymerase chain reaction (RT-PCR).
1		12.	The method according to claim 11, wherein the sample nucleic
2	acid preparation and the control nucleic acid preparation are each labeled with different		
3	labels.		
1		13.	The method according to claim 12, wherein the sample nucleic
2	acids are labe	led wit	h fluorescent tags.
1		14.	The method according to claim 9, wherein the array is supported
2	on a solid sur	port se	lected from the group consisting of a glass slide and a silicon chip.
2			

1	15.	The method according to claim 9, wherein the sample cens are at a	
2	different developmer	ntal point during embryogenesis relative to the control cells.	
1	16.	The method according to claim 9, wherein the sample cells are	
2	located in a different	region of an embryo compared to the control cells.	
1	17.	The method according to claim 9, wherein the sample cells are	
2	contacted with an external stimulus and the control cells are contacted with a sham		
3	stimulus or no stimulus.		
1	18.	The method according to claim 17, wherein the cells are contacted	
2	with a gene encoding	g a known gene product.	
1	19.	The method according to claim 17, wherein the cells are contacted	
2	with a gene encoding an unknown gene product.		
1	20.	The method according to claim 17, wherein the sample cells are	
2	contacted with a dru	g.	
1	21.	The method according to claim 17, wherein the sample cells are	
2	contacted with an environmental toxin.		
1	22.	The method according to claim 17, wherein the sample cells are	
2	irradiated.		
1	23.	The method according to claim 9, wherein the nucleic acid array	
2	contains one or mor	e sequences from Appendix 1.	

24. Method for detecting defects in development, which method
comprises contacting nucleic acids from test cells undergoing development with a nucleic
acid array of gene products known to play a fundamental role in the development process,
and detecting a difference in expression of a fundamental gene in the sample cells relative
to a standard.

- 25. The method according to claim 24, wherein the standard is a standard derived from expression in a normal cell.
 - 26. The method according to claim 24, wherein the nucleic acid array comprises one or more sequences as set forth in Appendix 1, or the complement thereof, or a hybridizable fragment thereof.
 - 27. The method according to claim 24, wherein a difference in gene expression in test cells relative to normal cells is indicative of a developmental defect.